ABSTRACT

A system for wireless data transmission between a stationary transmitting/reception device and a rotating body, e.g., a vehicle wheel, having secondary antennas, is provided. A plurality of stationary primary antennas are coupled to the stationary transmitting/reception device, and a plurality of secondary antennas are positioned along a circumference of the rotating body. Amongst the plurality of primary antennas, at least one primary antenna is provided for transmitting electrical energy to the secondary antennas, and at least one other primary antenna is provided for communications with the secondary antennas. In this manner, data transmission independent of the speed of the rotating body and the position of the secondary antennas is achieved.